

I. Number	Hits	Search Text	DB	Time stamp
1	218	708/\$.ccls. and quantum	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:35
2	1	708/203.ccls. and quantum	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:34
3	25	708/\$.ccls. and quantum and compression	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:36
4	1	(708/\$.ccls. and quantum and compression) and eigenstates	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:36
5	1	(708/\$.ccls. and quantum and compression) and eigenstate\$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:36
6	6	(708/\$.ccls. and quantum and compression) and project\$5	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:38
7	19	compression and quantum and eigenstate\$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:38
8	18	(compression and quantum and eigenstate\$1) not ((708/\$.ccls. and quantum and compression) and eigenstates)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:42
9	3015	(compress\$5.ti. or compress\$5.ab. or compress\$5.clm.) and quantum	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:42
10	21	((compress\$5.ti. or compress\$5.ab. or compress\$5.clm.) and quantum) and (quantum adj information)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:43
11	20	((((compress\$5.ti. or compress\$5.ab. or compress\$5.clm.) and quantum) and (quantum adj information)) not ((compression and quantum and eigenstate\$1) not ((708/\$.ccls. and quantum and compression) and eigenstates))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:50
12	1	compress\$5 and eigenstate\$1 and (Shannon-Fano or Shannon adj Fano)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:51
13	1	compress\$5 and eigenstate\$1 and (Shannon-Fano or (Shannon adj Fano))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/10/08 08:51

14	83	compress\$5 and (Shannon-Fano or (Shannon adj Fano))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/10/08 08:51
15	83	compress\$5 and (Shannon-Fano or (Shannon adj Fano))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/10/08 08:51
16	3	project\$3 and (compress\$5 and (Shannon-Fano or (Shannon adj Fano)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/10/08 08:51

# Quantum Physics

## Authors and titles for May 1998

### quant-ph/9805001 [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Purifying noisy entanglement requires collective measurements

**Authors:** [N. Linden](#), [S. Massar](#), [S. Popescu](#)

**Comments:** 5 pages, Latex

**Journal-ref:** Phys.Rev.Lett. 81 (1998) 3279-3282

### quant-ph/9805002 [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** The Initialization Problem in Quantum Computing

**Authors:** [Subhash Kak](#) (Louisiana State University)

**Comments:** 12 pages (the final version as it was published)

**Journal-ref:** Foundations of Physics, vol 29, 1999, pages 267-279

### quant-ph/9805003 [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Quantum Communication with Phantom Photons

**Authors:** [S.J. van Enk](#), [H.J. Kimble](#), [J.I. Cirac](#), [P. Zoller](#)

**Comments:** 6 pages RevTex, 4 eps figures included. Revised calculation with more details about mode structure calculation and the introduction of losses

### quant-ph/9805004 [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Wigner transform and quantum-like corrections for charged-particle beam transport

**Authors:** [R. Fedele](#), [V.I. Man'ko](#)

**Comments:** LaTeX [sproc] 3 pages, to be published in Proceedings of the 5th Wigner Symposium (Vienna, 25-29 August, 1997)

### quant-ph/9805005 [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Wave function of a Brownian particle

**Authors:** [R. M. Cavalcanti](#)

**Comments:** 6 pages, REVTEX. Published version

**Subj-class:** Quantum Physics; Statistical Mechanics

**Journal-ref:** Phys.Rev. E58 (1998) 6807

### quant-ph/9805006 [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Quantum Oracle Interrogation: Getting all information for almost half the price

**Authors:** [Wim van Dam](#) (U of Oxford, CWI)

**Comments:** 11 pages LaTeX2e, 1 postscript figure; error analysis added; new section on approximate interrogation added

**Subj-class:** Quantum Physics; Computational Complexity

**Journal-ref:** Proceedings of the 39th Annual IEEE Symposium on Foundations of Computer Science (FOCS'98), pages 362-367.

### quant-ph/9805007 [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Classical properties of generalized coherent states: from phase-space dynamics to Bell's inequality

**Authors:** [C. Brif](#), [A. Mann](#), [M. Revzen](#) (Technion, Haifa)

**Comments:** LaTeX2e, amssymb style, 11 pages, 1 figure. Presented at 2nd Jagna International Workshop "Mathematical Methods of Quantum Physics", January 1998, Jagna, Philippines. To be published in a Festschrift for Professor Hiroshi Ezawa (Gordon & Breach, London)

**quant-ph/9805008 [abs, ps, pdf, other] :**

**Title:** A New Approach to Locality and Causality  
**Author:** B.G. Sidharth  
**Comments:** 12 pages, TeX

**quant-ph/9805009 [abs, ps, pdf, other] :**

**Title:** The Chiral Oscillator and its Applications in Quantum Theory  
**Authors:** R.Banerjee, S.Ghosh  
**Comments:** Latex  
**Journal-ref:** J.Phys. A31 (1998) L603-L608

**quant-ph/9805010 [abs, ps, pdf, other] :**

**Title:** Toward a finite-dimensional formulation of Quantum Field Theory  
**Author:** Miguel Navarro  
**Comments:** Latex file, 12 pages  
**Journal-ref:** Found.Phys.Lett. 11 (1998) 585-593

**quant-ph/9805011 [abs, ps, pdf, other] :**

**Title:** The Piecewise Deterministic Process Associated to EEQT  
**Authors:** Ph. Blanchard, A. Jadczyk, R. Olkiewicz  
**Comments:** 22 pages Latex, revtex. Replacement contains a more detailed discussion of the inhomogeneous Markov process and several additional explanations

**quant-ph/9805012 [abs, ps, pdf, other] :**

**Title:** Measurable and Unmeasurable in "Protective" Measurements  
**Authors:** N.D. Hari Dass (IMSc, Madras, India), Tabish Qureshi (IGCAR, Kalpakkam, India.)  
**Comments:** 14 pages RevTex, many significant additions, submitted for publication in PRA  
**Journal-ref:** Phys.Rev. A59 (1999) 2590

**quant-ph/9805013 [abs, ps, pdf, other] :**

**Title:** Towards a Unified Description of the Fundamental Interactions  
**Author:** B.G. Sidharth  
**Comments:** 8 pages, TeX  
**Journal-ref:** Chaotic Universe, Nova Science, New York, 2001

**quant-ph/9805014 [abs, ps, pdf, other] :**

**Title:** Path Integral Quantization and Riemannian-Symplectic Manifolds  
**Authors:** Sergei V. Shabanov, John R. Klauder  
**Comments:** plain Latex, 9 pages, no figures  
**Subj-class:** Quantum Physics; Mathematical Physics  
**Journal-ref:** Phys.Lett. B435 (1998) 343-349

**quant-ph/9805015 [abs, ps, pdf, other] :**

**Title:** A Rudimentary Quantum Compiler  
**Authors:** Robert R. Tucci

**Comments:** 1 LaTeX file (25 pages), 9 eps files

**quant-ph/9805016 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** How to Compile A Quantum Bayesian Net

**Authors:** [Robert R. Tucci](#)

**Comments:** 1 LaTeX file (14 pages), 5 eps files

**quant-ph/9805017 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Universal Quantum Information Compression

**Authors:** [Richard Jozsa](#), [Michal Horodecki](#), [Pawel Horodecki](#), [Ryszard Horodecki](#)

**Comments:** RevTex 4 pages

**Journal-ref:** Phys.Rev.Lett. 81 (1998) 1714-1717

**quant-ph/9805018 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Logical Dissipation of Automata Implements - Dissipation of Computation

**Authors:** [Philippe Matherat](#) (Ecole Nationale Supérieure des Télécommunications), [Marc-Thierry Jaekel](#) (Laboratoire de Physique Théorique de l'Ecole Normale Supérieure)

**Comments:** 12 pages, 13 figures

**Subj-class:** Quantum Physics; Logic

**Journal-ref:** T.S.I. 15 (1996) 1079

**quant-ph/9805019 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Optimal eavesdropping in quantum cryptography with six states

**Authors:** [Dagmar Bruss](#)

**Comments:** 4 pages, 1 figure

**Journal-ref:** Phys.Rev.Lett. 81 (1998) 3018-3021

**quant-ph/9805020 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Quantum State Reconstruction From Incomplete Data

**Authors:** [V. Bužek](#), [G. Drobny](#), [R. Derka](#), [G. Adam](#), [H. Wiedemann](#)

**Comments:** 85 pages, revtex, 15 figures, 9 tables

**quant-ph/9805021 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Quantum mechanical 'Backward in Time'? Comments, Answers, and the Causal Indistinguishability Condition

**Authors:** [Antoine Suarez](#) (Center for Quantum Philosophy, Zurich)

**Comments:** 16 pages Latex, 1 eps figure. The same content differently arranged has been submitted to Physics Letters A

**quant-ph/9805022 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Phase Information in Quantum Oracle Computing

**Authors:** [J. Machta](#)

**Comments:** 3 pages, latex

**quant-ph/9805023 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Sonoluminescence: Bogolubov coefficients for the QED vacuum of a time-dependent dielectric bubble

**Authors:** [Matt Visser](#), [S. Liberati](#), [F. Belgiorno](#), [D.W. Sciama](#)

**Comments:** 4 pages, RevTeX, 2 figures (.eps file) included with graphics.sty. Major revisions: physical scenario clarified,

additional numerical estimates

**Journal-ref:** Phys.Rev.Lett. 83 (1999) 678-681

**quant-ph/9805024 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Asymmetric quantum cloning machines in any dimension

**Authors:** [Nicolas J. Cerf](#) (Caltech)

**Comments:** 18 pages RevTeX, 3 Postscript figures; new discussion on no-cloning uncertainty relations, several corrections, added references

**Journal-ref:** J.Mod.Opt. 47 (2000) 187

**quant-ph/9805025 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Product rule for gauge invariant Weyl symbols and its application to the semiclassical description of guiding center motion

**Authors:** [Michael Mueller](#)

**Comments:** 24 pages, RevTeX, no figures; shortened version will be published in J.Phys.A

**Journal-ref:** J.Phys. A32 (1999) 1053-1064

**quant-ph/9805026 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Bound states of a spin-1/2 charged particle in a magnetic flux tube

**Authors:** [R. M. Cavalcanti](#), [C. A. A. de Carvalho](#)

**Comments:** 4 pages, REVTeX. Final version, to appear in J. Phys. A: Math. Gen

**Subj-class:** Quantum Physics; Mathematical Physics

**Journal-ref:** J.Phys. A31 (1998) 7061-7063

**quant-ph/9805027 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Physical interpretation of stochastic Schroedinger equations in cavity QED

**Author:** [Tarso B.L. Kist](#), [M. Orszag](#), [T.A. Brun](#), [L. Davidovich](#)

**Comments:** 12 pages RevTeX 3.0 + 6 figures (GIF format; for higher-resolution postscript images or hardcopies contact the authors.) Submitted to Phys. Rev. A

**quant-ph/9805028 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Retrodictively Optimal Localisations in Phase Space

**Authors:** [D. M. Appleby](#)

**Comments:** 11 pages, 2 figures. AMS Latex. Replaced with published version

**Journal-ref:** J.Mod.Opt. 46(1999) 813-823

**quant-ph/9805029 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Strong excitations of a Bose-Einstein condensate: Barrier resonances

**Authors:** [Juan J. G. Ripoll](#), [Victor M. Perez-Garcia](#)

**Comments:** 4 pages, 3 EPS figures

**quant-ph/9805030 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Localization of Events in Space-Time

**Authors:** [Marco Toller](#) (Department of Physics of the University, I. N. F. N., Trento, Italy)

**Comments:** 31 pages, latex, no figures

**Journal-ref:** Phys.Rev. A59 (1999) 960

**quant-ph/9805031 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Sonoluminescence as a QED vacuum effect: Probing Schwinger's proposal

**Authors:** [S. Liberati](#), [F. Belgiorno](#), [Matt Visser](#), [D.W. Sciama](#)

**Comments:** 18 pages, ReV\_TeX 3.2, 9 figures. Major revisions: This document is now limited to providing a probe of Schwinger's original suggestion for sonoluminescence. For details on our own variant of Schwinger's ideas see [quant-ph/9805023](#), [quant-ph/9904013](#), [quant-ph/9904018](#), [quant-ph/9905034](#)

**Journal-ref:** J.Phys. A33 (2000) 2251-2272

**quant-ph/9805032** [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Measuring quantum optical Hamiltonians

**Authors:** [G. M. D'Ariano](#), [L. Maccone](#) (Dipartimento di Fisica "A. Volta", Pavia, Italy)

**Comments:** Accepted for publication on Phys. Rev. Lett. 8 eps figures, 4 two-column pages in REVTeX

**Journal-ref:** Phys.Rev.Lett. 80 (1998) 5465-5468

**quant-ph/9805033** [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Controlling Quantum State Reduction

**Author:** [Masanao Ozawa](#) (Nagoya University)

**Comments:** 9 pages, REVTeX

**Journal-ref:** Phys.Lett. A282 (2001) 336-342

**quant-ph/9805034** [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Maximal violation of Bell's inequality and atomic cascade photons

**Author:** [M. Ardehali](#)

**Comments:** LaTeX file, 18 pages, no figures. The paper has been significantly modified. It is shown that the in the case of ideal experiments, the inequality derived in this paper is equivalent to Bell's original inequality of 1965 which, as is well known, is violated by a factor of 1.5. The crucial point is that even in the case of real experiments where polarizers and detectors are non-ideal, the present inequality is violated by a factor of 1.5, whereas previous inequalities such as CHSH inequality of 1969 and CH inequality of 1974 are violated by a factor of  $\sqrt{2}$

**quant-ph/9805035** [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Composite absorbing potentials

**Authors:** [J. P. Palao](#), [J. G. Muga](#), [R. Sala](#)

**Comments:** 9 pages, Revtex, 2 postscript figures. Accepted in Phys. Rev. Lett

**Journal-ref:** Phys.Rev.Lett. 80 (1998) 5469-5472

**quant-ph/9805036** [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** The addition of the lower level to spectrums of matrix and scalar components of d=2 SUSY Hamiltonian

**Author:** [S B Leble](#), [A V Yurov](#) (Technical University of Gdansk, Kaliningrad State University)

**Comments:** amstex

**quant-ph/9805037** [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Quantum Whispers

**Authors:** [Lucien Hardy](#) (U of Oxford), [Wim van Dam](#) (U of Oxford, CWI)

**Comments:** LaTeX2e document, 16 pages, 5 figures, all 6 files should be in the same directory before processing the LaTeX file

**Journal-ref:** Physical Review A, Volume 59, No. 4, pp. 2635-2640 (1999)

**quant-ph/9805038** [[abs](#), [ps](#), [pdf](#), [other](#)] :

**Title:** Collectivity, Phase Transitions and Exceptional Points in Open Quantum Systems

**Authors:** [W.D. Heiss](#), [M. Mueller](#), [I. Rotter](#)

**Comments:** 22 pages, 4 figures

**Journal-ref:** Phys.Rev. E58 (1998) 2894-2901

**quant-ph/9805039 [abs, ps, pdf, other] :**

**Title:** Scale decoherence in inhomogeneous potentials

**Author:** David A. Meyer (University of California/San Diego)

**Comments:** 10 pages, plain TeX, 4 PostScript figures included with epsf.tex (ignore the under/overfull vbox error messages)

**quant-ph/9805040 [abs, ps, pdf, other] :**

**Title:** Optical Tachyons in Parametric Amplifiers: How Fast Can Quantum Information Travel?

**Authors:** G. Kurizki, A. E. Kozhekin, A. G. Kofman (Weizmann Inst. of Science, Israel), M. Blaauboer (Vrije Universiteit, The Netherlands)

**Comments:** Contribution to the Internet session, VII Seminar on Quantum Optics (Raubichi, BELARUS, May 18-20, 1998), see [this http URL](#) (10 pages, RevTeX, 8 figures)

**Subj-class:** Quantum Physics; Optics

**Journal-ref:** Opt.Spectrosc. 87 (1999) 505-512

**quant-ph/9805041 [abs, ps, pdf, other] :**

**Title:** Semiclassical Time Evolution and Trace Formula for Relativistic Spin-1/2 Particles

**Authors:** Jens Bolte, Stefan Keppeler

**Comments:** 8 pages, no figures

**Subj-class:** Quantum Physics; Mathematical Physics; Chaotic Dynamics

**Journal-ref:** Phys.Rev.Lett. 81 (1998) 1987-1991

**quant-ph/9805042 [abs, ps, pdf, other] :**

**Title:** Shape Invariance and Its Connection to Potential Algebra

**Authors:** Asim Gangopadhyaya, Jeffrey V. Mallow, Uday P. Sukhatme

**Comments:** Latex File, 10 pages, One figure available on request. Appeared in the proceedings of the workshop on "Supersymmetric Quantum Mechanics and Integrable Models" held at University of Illinois, June 12-14, 1997; Ed. H. Aratyn et al

**quant-ph/9805043 [abs, src] :**

**Title:** Quantum Harmonic Sieve: Learning DNF with a Classical Example Oracle

**Authors:** Dan Ventura, Tony Martinez

**Comments:** 33 pages

**quant-ph/9805044 [abs, ps, pdf, other] :**

**Title:** Frequency up-converted radiation from a cavity moving in vacuum

**Authors:** A. Lambrecht, M.T.Jaekel, S. Reynaud

**Comments:** 10 pages, 3 figures, LaTeX, to appear in European Physical Journal D3, replaced version with few minor grammatical changes

**Journal-ref:** Eur.Phys.J. D3 (1998) 95-104

**quant-ph/9805045 [abs, ps, pdf, other] :**

**Title:** Quantum teleportation of a single-photon wave packet

**Author:** S.N.Molotkov (Institute of Solid State Physics, Russian Academy of Sciences)

**Comments:** 6 pages, no figures

**Journal-ref:** Phys.Lett. A245 (1998) 339-344



**quant-ph/9805046 [abs, ps, pdf, other] :**

**Title:** Hydrodynamical quantum state reconstruction

**Authors:** Lars M. Johansen

**Comments:** 4 pages, 3 figures, to appear in Phys. Rev. Lett

**Journal-ref:** Phys.Rev.Lett. 80 (1998) 5461-5464

**quant-ph/9805047 [abs, ps, pdf, other] :**

**Title:** Is quantum mechanics non-local?

**Author:** Henry P. Stapp

**Comments:** Reply to the revised (April 27, 1998) version of [quant-ph/9710032](#) Unruh's paper has been accepted by Phys. Rev.

A: My reply submitted 5/15/98

**quant-ph/9805048 [abs, ps, pdf, other] :**

**Title:** Generating and monitoring Schrödinger cats in conditional measurement on a beam splitter

**Authors:** M. Dakna, J. Clausen, L. Knoll, D.-G. Welsch

**Comments:** 6 figures using a4.sty

**quant-ph/9805049 [abs, ps, pdf, other] :**

**Title:** True Collapse and False Collapse

**Authors:** Philip Pearle

**Comments:** 14 pages, Tex

**Journal-ref:** Quantum Classical Correspondence: Proceedings of the 4th Drexel Symposium on Quantum Nonintegrability, Philadelphia, PA, USA, September 8-11, 1994, pp. 51-68. Edited by Da Hsuan Feng and Bei Lok Hu. Cambridge, MA: International Press, 1997

**quant-ph/9805050 [abs, ps, pdf, other] :**

**Title:** Tales and Tails and Stuff and Nonsense

**Authors:** Philip Pearle

**Comments:** 14 pages, Tex

**Journal-ref:** Experimental Metaphysics-Quantum Mechanical Studies in Honor of Abner Shimony, volume 1, edited by R. S. Cohen, M. A. Horne and J. S. Stachel (Kluwer, Great Britain 1997) pp.143-156

**quant-ph/9805051 [abs, ps, pdf, other] :**

**Title:** On a Resolution of the Identity in Terms of Coherent States

**Author:** Boris F. Samsonov

**quant-ph/9805052 [abs, ps, pdf, other] :**

**Title:** On the problem of interactions in quantum theory

**Author:** Felix M. Lev

**Comments:** 35 pages, Latex

**quant-ph/9805053 [abs, ps, pdf, other] :**

**Title:** Reconstruction of diagonal elements of density matrix using maximum likelihood estimation

**Authors:** Z. Hradil, R. Myska

**Comments:** LaTeX, 5 pages, 7 figures; to be published in acta physica slovac

**Journal-ref:** Acta Phys.Slov. 48 (1998) 199-205

**quant-ph/9805054 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Generalized Husimi Functions: Analyticity and Information Content

**Authors:** [D. M. Appleby](#)

**Comments:** 16 pages, 2 figures, AMS-latex. Replaced with published version

**Journal-ref:** J.Mod.Opt. 46 (1999) 825-841

**quant-ph/9805055 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Information measures and classicality in quantum mechanics

**Authors:** [C. Anastopoulos](#)

**Comments:** 35 pages; LATEX

**Journal-ref:** Phys.Rev. D59 (1999) 045001

**quant-ph/9805056 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Consistent Quantum Counterfactuals

**Authors:** [Robert B. Griffiths](#) (Carnegie Mellon University)

**Comments:** Minor modifications to make it agree with published version. Latex 8 pages, 2 figures

**Journal-ref:** Phys.Rev. A60 (1999) 5-8

**quant-ph/9805057 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Arrival Times in Quantum Theory from an Irreversible Detector Model

**Authors:** [J. J. Halliwell](#) (Imperial College, London)

**Comments:** 19 pages, plain Tex (Fourth revision). To appear in Prog.Th.Phys. Vol. 102, No. 4

**Journal-ref:** Prog.Theor.Phys. 102 (1999) 707-717

**quant-ph/9805058 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Quantum probability distribution of arrival times and probability current density

**Author:** [V. Delgado](#) (Univ. La Laguna)

**Comments:** 21 pages, 7 figures, LaTeX; Revised version to appear in Phys. Rev. A (many small changes)

**Journal-ref:** Phys.Rev. A59 (1999) 1010

**quant-ph/9805059 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** NMR Quantum Automata in Doped Crystals

**Authors:** [Haiqing Wei](#), [Xin Xue](#), [S. D. Morgera](#)

**Comments:** Latex file, one eps figure

**quant-ph/9805060 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Dynamics of decoherence in continuous atom-optical quantum nondemolition measurements

**Authors:** [Roberto Onofrio](#), [Lorenza Viola](#)

**Comments:** 9 pages, plain ReVTeX, 4 figures. To be published in Physical Review A 58, 1 July 1998

**quant-ph/9805061 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Electron acceleration due to photon absorption: A possible origin of the infinity problems in relativistic quantum fields

**Authors:** [W. A. Hofer](#) (TU-Wien)

**Comments:** 4 pages (RevTeX, twocolumn) and 2 figures (eps). Journal reference updated and the effects of time dilation

explained more thoroughly. For a list of available papers see [this http URL](#).

**Subj-class:** Quantum Physics; Popular Physics

**quant-ph/9805062 [abs, ps, pdf, other] :**

**Title:** Decoherent Histories and Hydrodynamic Equations

**Authors:** [J. J. Halliwell](#) (Imperial College, London)

**Comments:** 35 pages, plain Tex, revised after refereeing

**Journal-ref:** Phys.Rev. D58 (1998) 105015

**quant-ph/9805063 [abs, ps, pdf, other] :**

**Title:** Quantum Theory in the Rigged Hilbert Space-Irreversibility from Causality

**Authors:** [A. Bohm](#), [N. L. Harshman](#)

**Comments:** 60 pages, to appear in Irreversibility and Causality in Quantum Theory: Semigroups and Rigged Hilbert Space, Arno Bohm, H.D. Doebner, P. Kielanowski, eds; Vol. 504 Springer Lecture Notes in Physics

**quant-ph/9805064 [abs, ps, pdf, other] :**

**Title:** When does a Measurement or Event Occur

**Authors:** [J. Oppenheim](#), [B. Reznik](#), [W. G. Unruh](#)

**Comments:** 8 pages, no figures minor wording change

**Journal-ref:** Found.Phys.Lett. 13 (2000) 107-118

**quant-ph/9805065 [abs, ps, pdf, other] :**

**Title:** Decoherence, Einselection, and the Existential Interpretation (the Rough Guide)

**Author:** [Wojciech H. Zurek](#)

**Comments:** 27 pages in LaTeX, 3 figures, to appear in Philosophical Transactions of the Royal Society, Mathematical, Physical and Engineering Sciences

**Journal-ref:** Phil.Trans.Roy.Soc.Lond. A356 (1998) 1793-1820

**quant-ph/9805066 [abs, ps, pdf, other] :**

**Title:** On Reichenbach's common cause principle and Reichenbach's notion of common cause

**Authors:** [G. Hofer-Szabo](#) (1), [M. Rédei](#) (2), [L. E. Szabo](#) (2) ((1) Technical University of Budapest, (2) Eotvos University, Budapest)

**Comments:** 15 pages, LaTeX

**Subj-class:** Quantum Physics; Mathematical Physics; Probability

**quant-ph/9805067 [abs, ps, pdf, other] :**

**Title:** The broadcast quantum channel for classical information transmission

**Authors:** [A.E. Allahverdyan](#), [D.B. Saakian](#)

**Comments:** LaTeX file, 8 pages

**quant-ph/9805068 [abs, ps, pdf, other] :**

**Title:** Does quantum chaos exist? (A quantum Lyapunov exponents approach.)

**Authors:** [W. A. Majewski](#)

**Comments:** Latex, 28 pages

**Subj-class:** Quantum Physics; Mathematical Physics; Chaotic Dynamics

**quant-ph/9805069 [abs, ps, pdf, other] :**

**Title:** Implementation of a Quantum Search Algorithm on a Nuclear Magnetic Resonance Quantum Computer

**Authors:** J. A. Jones, M. Mosca, R. H. Hansen (University of Oxford, UK)

**Comments:** Six pages, three figures

**Journal-ref:** Nature 393 (1998) 344-346

**quant-ph/9805070 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Quantum Logic Gates and Nuclear Magnetic Resonance Pulse Sequences

**Authors:** J. A. Jones, R. H. Hansen, M. Mosca (University of Oxford, UK)

**Comments:** Sixteen pages, no figures. Submitted to Journal of Magnetic Resonance. Primarily pedagogical rather than a description of novel research results

**Journal-ref:** J.Magn.Resonance 135 (1998) 353-360

**quant-ph/9805071 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Practical free-space quantum key distribution over 1 km

**Authors:** W. T. Buttler, R. J. Hughes, P. G. Kwiat, S. K. Lamoreaux, G. G. Luther, G. L. Morgan, J. E. Nordholt, C. G. Peterson, C. M. Simmons

**Comments:** 5 pages, 2 figures, 2 tables. Submitted to Physics Review Letters, May 1998

**Journal-ref:** Phys.Rev.Lett. 81 (1998) 3283-3286

**quant-ph/9805072 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Entanglement and thermodynamical analogies

**Authors:** Pawel Horodecki, Ryszard Horodecki, Michal Horodecki

**Comments:** RevTeX, 11 pages

**Journal-ref:** Acta Phys.Slov. 48 (1998) 141-156

**quant-ph/9805073 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Optimal Copying of One Quantum Bit

**Authors:** Chi-Sheng Niu, Robert B. Griffiths

**Comments:** RevTex, 26 pages, 2 Postscript figures

**Journal-ref:** Phys.Rev. A58 (1998) 4377-4393

**quant-ph/9805074 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Is the EPR paradox really a paradox?

**Authors:** A. Tartaglia (Dipartimento di Fisica, Politecnico Torino, Italy)

**Comments:** Latex

**Journal-ref:** European Journal of Physics, 19,307, (1998)

**quant-ph/9805075 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Time Machines and the Breakdown of Unitarity

**Authors:** Frank Antonen, Karsten Bornann

**Comments:** standard LaTeX

**Journal-ref:** Int.J.Theor.Phys. 37 (1998) 2383-2393

**quant-ph/9805076 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Full observation of single-atom dynamics in cavity QED

**Authors:** Hideo Mabuchi, Jun Ye, H. Jeff Kimble

**Comments:** Submitted to Applied Physics B. Uses Revtex, 13 pages with 11 EPS figures

**Subj-class:** Quantum Physics; Atomic Physics

**quant-ph/9805077 [abs, ps, pdf, other] :**

**Title:** In-loop squeezing is real squeezing to an in-loop atom

**Authors:** H.M. Wiseman

**Comments:** 4 pages, 2 figures, submitted to PRL

**Journal-ref:** Phys.Rev.Lett. 81 (1998) 3840-3843

**quant-ph/9805078 [abs, ps, pdf] :**

**Title:** New Concept of Dynamic Complexity in Quantum Mechanics and Beyond

**Authors:** Andrei P. Kirilyuk

**Comments:** 5 pages, PostScript 3.0 from an MS Word file; a non-technical interpretation of recently published results

**Subj-class:** Quantum Physics; Chaotic Dynamics

**Journal-ref:** Annales Fond.Broglie 21 (1996) 455-480

**quant-ph/9805079 [abs, ps, pdf, other] :**

**Title:** On Quantum Mechanics

**Author:** F. Ghaboussi

**Comments:** 9 pages, latex, revised version2

**quant-ph/9805080 [abs, ps, pdf, other] :**

**Title:** A quantum analog of Huffman coding

**Authors:** Samuel L. Braunstein, Christopher A. Fuchs, Daniel Gottesman, Hoi-Kwong Lo

**Comments:** Revised version, 7 pages, two-column, RevTex. Presented at 1998 IEEE International Symposium on Information Theory

**quant-ph/9805081 [abs, ps, pdf, other] :**

**Title:** Measurement Process In a Two-Barrier System

**Author:** L. Stodolsky (Max-Planck-Institut für Physik)

**Comments:** Completely revised discussion of transmitted current, otherwise mostly minor editorial changes

**Journal-ref:** Phys.Lett. B459 (1999) 193

**quant-ph/9805082 [abs, ps, pdf, other] :**

**Title:** Quantum Counting

**Authors:** Gilles Brassard (1), Peter Hoyer (2), Alain Tapp (1) ((1) Universite de Montreal, (2) Odense University)

**Comments:** 12 pages, LaTeX2e

**quant-ph/9805083 [abs, ps, pdf, other] :**

**Title:** Remarks on Universal Quantum Computer

**Authors:** Yu Shi

**Comments:** Revtex, 14 pages

**Journal-ref:** Phys.Lett. A293 (2002) 277-282

**quant-ph/9805084 [abs, ps, pdf, other] :**

**Title:** Generalized Noiseless Quantum Codes utilizing Quantum Enveloping Algebras

**Authors:** Micho Durdevich, Hanna E. Makaruk, Robert Owczarek

**Comments:** 10 pages, LaTeX, 2 figures Postscript

**Journal-ref:** J.Phys. A34 (2001) 1423-1438

**quant-ph/9805085 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Schrödinger operators with complex potential but real spectrum

**Authors:** [Francesco Cannata](#), [Georg Junker](#), [Johannes Trost](#)

**Comments:** 10, pages, LaTeX 2.09, 6 Postscript figures, uses amsfont, figures available at [this http URL](#)

**Subj-class:** Quantum Physics; Mathematical Physics

**Journal-ref:** Phys.Lett. A246 (1998) 219-226

**quant-ph/9805086 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Quantum Effects in Algorithms

**Authors:** [Richard Jozsa](#)

**Comments:** 10 pages, Latex. For Proceedings of First NASA International Conference on Quantum Computation and Quantum Communication (Palm Springs, February 1998)

**quant-ph/9805087 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Interfering resonances in a quantum billiard

**Authors:** [E. Persson](#), [K. Fichugin](#), [I. Rotter](#), [P. Seba](#)

**Comments:** 2 pages, 3 figures

**Journal-ref:** Phys.Rev. E58 (1998) 8001-8004

**quant-ph/9805088 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Entangled Mixed States and Local Purification

**Authors:** [Adrian Kent](#)

**Comments:** 3 pages, Latex with Revtex. Small clarifications and reference added

**Journal-ref:** Phys.Rev.Lett. 81 (1998) 2839-2841

**chao-dyn/9805020 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Quantum baker map on the sphere

**Authors:** [Prot Pakonski](#), [Andrzej Ostruszka](#), [Karol Życzkowski](#)

**Comments:** REVTeX 15 pages, 6 figures included (ps format), final published version with generalization of the model

**Subj-class:** Chaotic Dynamics

**Journal-ref:** Nonlinearity 12 (1999) 269-284

**cond-mat/9805081 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** New approach to Borel summation of divergent series and critical exponent estimates for an N-vector cubic model in three dimensions from five-loop  $\epsilon$  expansions

**Author:** [Andrei Mudrov](#), [Konstantin Varnashev](#)

**Comments:** 9 pages, LaTeX, 3 PostScript figures

**Subj-class:** Statistical Mechanics

**Journal-ref:** Phys.Rev. E58 (1998) 5371-5375

**gr-qc/9805014 [[abs](#), [ps](#), [pdf](#), [other](#)] :**

**Title:** Emergence of classicality for primordial fluctuations: Concepts and analogies

**Authors:** [C. Kiefer](#), [D. Polarski](#)

**Comments:** 25 pages, Latex, typos corrected, reference added

**Journal-ref:** Annalen Phys. 7 (1998) 137-158

**gr-qc/9805067 [abs, ps, pdf, other] :**

**Title:** Can general-relativistic description of gravitation be considered complete?

**Author:** D. V. Ahluwalia

**Comments:** Essay Awarded "Honorable Mention" by Gravity Research Foundation (1998). The answer to the question posed in the title is an experimentally verifiable "no."

**Journal-ref:** Mod.Phys.Lett. A13 (1998) 1393-1400

**gr-qc/9805076 [abs, ps, pdf, other] :**

**Title:** Universe as a Phase Boundary in a Four-Dimensional Euclidean Space

**Author:** Michael Grady

**Comments:** 7 pages, Latex, no figures. Many arguments substantially expanded, new introduction

**hep-ph/9805263 [abs, ps, pdf, other] :**

**Title:** Covariant Model of Relativistic Extended Particles based on the Oscillator Representation of the Poincar'e Group

**Authors:** Y. S. Kim

**Comments:** RevTeX, 20 pages, 2 psfigs, contribution to the Volume dedicated to Prof. T.Y.Wu on his 90th Birthday (to be published by World Scientific, Singapore)

**Subj-class:** High Energy Physics - Phenomenology, Mathematical Physics

**hep-ph/9805360 [abs, ps, pdf, other] :**

**Title:** Time evolution of correlation functions for classical and quantum anharmonic oscillators

**Authors:** Luis M. A. Bettencourt (Los Alamos), C. Wetterich (U. of Heidelberg)

**Comments:** 4 pages, 4 figures, RevTeX, revised version

**hep-th/9805159 [abs, ps, pdf, other] :**

**Title:** Magnetic Catalysis of Dynamical Symmetry Breaking and Aharonov-Bohm Effect

**Author:** V. A. Miransky

**Comments:** 8 pages, RevTeX. Based on the talk given at the Workshop "Nonperturbative Methods in Quantum Field Theory" (February 1998, Adelaide). A reference is added

**math-ph/9805012 [abs, ps, pdf, other] :**

**Title:** Fast Quantum Maps

**Authors:** G. G. Athanasiu (U. Crete), E. G. Floratos (NRCPS Demokritos), S. Nicolis (CNRS-LMPT Tours)

**Comments:** 10 pages LaTeX (needs amssymb.sty)

**Subj-class:** Mathematical Physics; Chaotic Dynamics

**Journal-ref:** J.Phys. A31 (1998) L655

**math-ph/9805017 [abs, ps, pdf, other] :**

**Title:** The Bargmann-Wigner Formalism for Spin 2

**Author:** Valeri V. Dvoeglazov (EFUAZ)

**Comments:** ReVTeX file, 6pp

**Subj-class:** Mathematical Physics

**Journal-ref:** Adv. Appl. Clifford Algebras v. 10 , No. 1 (2000) pp. 7-14

**math-ph/9805022 [abs, ps, pdf, other] :**

**Title:** Adiabatic Theorem without a Gap Condition

**Authors:** J.E. Avron, A. Elgart

**Comments:** 23 pages, revised and extended with 4 figures, to appear in Comm. Math. Phys

**Subj-class:** Mathematical Physics; Spectral Theory; Atomic Physics

**Journal-ref:** Commun.Math.Phys. 203 (1999) 445-463

**physics/9805027 [abs, ps, pdf, other] :**

**Title:** Quantum-classical correspondence in the hydrogen atom in weak external fields

**Authors:** [Paolo Bellomo](#), [C. R. Stroud, Jr.](#), [David Farely](#), [T. Uzer](#)

**Comments:** 18 pages, 1 postscript figure. My previous experience suggests that one should go for the 600 dpi postscript with bitmapped fonts. In this new version I have simply corrected a few typos

**Subj-class:** Atomic Physics; Chemical Physics; Classical Physics

**Journal-ref:** Phy. Rev. A 38, 3896 (1998)

## **List remaining 1 entries**

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